

**REMARKS**

Claims 1-5 are all the claims pending in the present application, new claim 5 having been added as indicated herein. Claims 1-3 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sasao (U.S. Patent No. 5,609,304). Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sasao.

**§ 102(b) Rejections (Sasao) - Claims 1-3**

With respect to independent claim 1, Applicant amends claim 1 and argue that Sasao does not teach or suggest at least, “wherein a variable gap is formed between a planate end face of a valve body-side of said armature and that of said valve body in such an arrangement that fuel flow path area of said variable gap is diminished as said valve element moves toward said valve seat,” as recited in amended claim 1. That is, even though Sasao discloses a variable gap between an armature 21A and a valve body 20A in Fig. 7, the end face of the valve body-side of the armature 21A is NOT planate. Therefore, at least based on the foregoing, Applicant submits that Sasao does not anticipate or render obvious claim 1.

With respect to independent claim 2, Applicant submits that Sasao does not teach or suggest at least, “a cylindrical sleeve secured to said valve body at one end thereof on the side of said armature and projecting toward said armature.” The Examiner alleges that the stopper plate 8 of Sasao corresponds to the claimed cylindrical sleeve, however the stopper plate 8, as shown in Fig. 1 of Sasao, does not appear to be cylindrical; it appears to be a horizontal, flat plate that impedes the backward stroke of the needle valve 10. *See col. 4, lines 38-40 of Sasao.* Therefore, at least based on the foregoing, Applicant submits that Sasao does not teach or render obvious the present invention, as recited in claim 2.

With respect to claim 3, Applicant amends this claim to place it in independent form, and submits that the Examiner does not even mention, and Sasao does not teach or suggest the claimed thin portion that is formed in an outer peripheral portion of said armature for diminishing a magnetic flux path area. Therefore, at least based on the foregoing, Applicant submits that claim 3 is patentably distinguishable over Sasao.

**§ 103(a) Rejections (Sasao) - Claim 4**

With respect to claim 4, first, Applicant submits that this claim is patentable at least by virtue of its dependency from independent claim 3. Further, even if, *arguendo*, welds are well known in the art (as the Examiner alleges), Sasao does not discuss and the Examiner does not even mention the claimed “said thin portion,” therefore Sasao clearly does not teach or suggest that said armature is fixedly secured to said valve element at said thin portion by welding.

Finally, Applicants add new dependent claim 5, as indicated herein, to provide a varying scope of coverage. Applicant submits that this claim is patentable at least by virtue of its dependency from independent claim 2, and because the applied art does not teach or suggest at least, “wherein a length of said variable gap, when said rod-like valve element abuts said valve seat, is adjustable to at least two different lengths,” as recited in new claim 5. That is, nowhere does Sasao teach or suggest that the gap between armature 21A and valve body 20A, when the needle valve 21 abuts the valve seat 20D (as shown in Figure 7 thereof), is adjustable to at least two different lengths. The gap in Sasao is one particular length and is not adjustable as set forth in claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

*AMENDMENT UNDER 37 C.F.R. § 1.111*  
*U. S. Application No. 10/782,774*

*ATTORNEY DOCKET NO. Q79672*

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

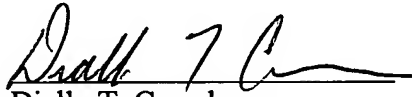
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**23373**

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